

Attorney's Docket No. SAE-0040

**AN ENGLISH TRANSLATION OF THE ANNEXES OF THE
INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

(Amended Claims under Article 34)

International Application No.: PCT/JP2005/001346

Applicant: Koichi Sakajiri et al.

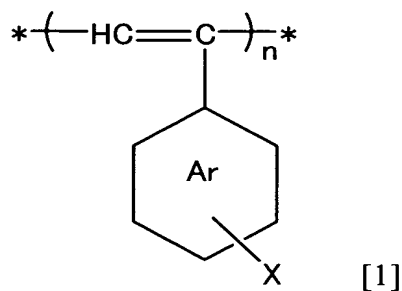
Title: HYDROPHILIC STIFF MAIN CHAIN TYPE LIQUID CRYSTALLINE
COMPOSITION AND CHIRAL SENSOR UTILIZING THE SAME

Rader, Fishman & Grauer PLLC

CLAIMS

(Amended under PCT Article 34)

1. (Amended) A liquid crystalline composition comprising 1 to 99% of a hydrophilic stiff main chain type liquid crystalline compound comprising a water-soluble salt of a synthetic helical polymer that does not have an asymmetric carbon as a main constituent of its main chain and a carrier for liquid crystal.
2. The liquid crystalline composition according to claim 1, wherein the synthetic helical polymer having no asymmetric carbon as a main constituent of its main chain is a synthetic helical polymer having a functional group capable of forming a salt in its side chain.
3. The liquid crystalline composition according to claim 1, wherein the synthetic helical polymer having no asymmetric carbon as a main constituent of its main chain is a synthetic helical polymer having a functional group that is capable of forming a salt in its side chain and contains a heteroatom.
4. The liquid crystalline composition according to claim 1, wherein the synthetic helical polymer having no asymmetric carbon as a main constituent of its main chain is a polyacetylene derivative.
5. The liquid crystalline composition according to claim 4, wherein the polyacetylene derivative is a polyarylacetylene derivative represented by the following formula [1]:



wherein n represents a polymerization degree, the ring Ar represents an aryl

group having 5 to 18 carbon atoms or a heteroaryl group, and X represents the functional group capable of forming the salt.

6. The liquid crystalline composition according to claim 5, wherein X in the general formula [1] is the functional group that is capable of forming the salt and contains the heteroatom.

7. The liquid crystalline composition according to claim 6, wherein the heteroatom in the functional group that contains the heteroatom is a nitrogen atom or phosphorus atom.

8. The liquid crystalline composition according to claim 5, wherein the functional group that is represented by X in the formula [1] and is capable of forming the salt is an amino group, substituted amino group, aminoalkyl group, substituted aminoalkyl group, pyridyl group, amino acid residue, or phosphoric acid ester group.

9. The liquid crystalline composition according to claim 1, wherein the water-soluble salt of the synthetic helical polymer is a salt of an inorganic salt or organic salt.

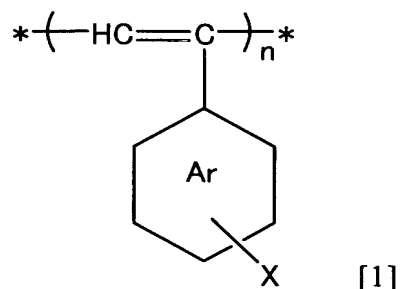
10. The liquid crystalline composition according to claim 9, wherein the water-soluble salt of the synthetic helical polymer is an alkali metal salt, alkaline earth metal salt, amine salt or ammonium salt.

11. (Amended) A chiral sensor comprising 1 to 99% of a hydrophilic stiff main chain type liquid crystalline compound comprising a water-soluble salt of a synthetic helical polymer that does not have an asymmetric carbon as a main constituent of its main chain and water.

12. The chiral sensor according to claim 11, wherein the synthetic helical polymer is a synthetic helical polymer having no asymmetric carbon.

13. The chiral sensor according to claim 11, wherein the synthetic helical polymer having no asymmetric carbon as a main constituent of its main chain is a polyacetylene derivative.

14. The chiral sensor according to claim 13, wherein the polyacetylene derivative is a polyarylacetylene derivative represented by the following general formula [1]:



wherein n represents a polymerization degree, the ring Ar represents an aryl group having 5 to 18 carbon atoms or a heteroaryl group, and X represents the functional group capable of forming the salt.

15. The chiral sensor according to claim 14, comprising a water-soluble salt of the polyarylacetylene derivative which is represented by the formula [1] and does not have an asymmetric carbon.

16. (Amended) Use of a liquid crystalline composition comprising 1 to 99% of a hydrophilic stiff main chain type liquid crystalline compound comprising a water-soluble salt of a synthetic helical polymer that does not have an asymmetric carbon as a main constituent of its main chain and water.

17. (Amended) A method for measuring the chirality of a test substance wherein the test substance is added in the presence of 1 to 99% of a hydrophilic stiff main chain type liquid crystalline compound which is a water-soluble salt of a synthetic helical polymer that does not have an asymmetric carbon as a main constituent of its main chain and water, thereby measuring stripe texture based on the hydrophilic stiff main chain type liquid crystalline compound.

18. The method according to claim 17, wherein the measurement is made with a polarization microscope.